
A New Species of *Dendrobium* Section *Rhizobium* (Orchidaceae) from Australia

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ABSTRACT. *Dendrobium brevicaudum* D. L. Jones & M. Clements is described for the forthcoming orchid volume of the *Flora of Australia*.

The genus *Dendrobium* Swartz in Australia comprises about 60 species distributed mainly in north-eastern Queensland, with about 16 species in the section *Rhizobium* (Clements, 1989). A distinctive new species of this section is described here as new.

Dendrobium brevicaudum D. L. Jones & M. Clements, sp. nov. TYPE: Australia. Queensland: Cook District, Mt. Finnigan, S of Cooktown, 31 Mar. 1993, C. H. Broers 422 & L. J. Roberts (holotype, CBG; isotypes, CBG, BRI). Figure 1.

Dendrobium brevicaudum D. L. Jones & M. Clements, species nova, *D. dolichophylli* D. L. Jones & M. Clements affinis, a qua floribus flavo-brunneis fragrantissimis, sepalis latioribus, sepalis lateralibus prope labellum curvatis, columna pubescente, et labello pubescente apice brevissimo differt.

Pendulous epiphyte forming slender clumps to 2 m or more long. Aerial roots absent. Stems straight, 10–20 cm × 2–2.5 mm, becoming yellow-brown on senescence. Old plants consist of 1 or 2 stems, leafless in proximal half, much-branched and leafy in distal half. Leaves linear-terete, 15–60 cm × 3.5–5 mm, linear-terete, pendulous, dark green. Racemes 4–6 cm long, wiry, arising singly from nodes at the leaf base, bearing 5–8 flowers. Pedicels 9–12 mm long, filiform. Ovary 1–2 mm long, hardly developed at anthesis. Flowers about 4.5 cm across, opening widely, strongly fragrant, dull yellowish to brownish yellow, with short dark reddish striae at the base of the sepals and a whitish labellum with fine purple markings and a darker callus. Dorsal sepal narrowly elliptical-lanceolate, 17–20 mm × 3.3–4 mm, slightly constricted near the base, erect to obliquely erect, apex obtuse. Lateral sepals asymmetrically lanceolate, 14–16 mm × 4.5–5.5 mm, strongly falcate, divergent but the inner base closely supporting the labellum, apex subacute, cymbiform. Petals narrowly linear-lanceolate, 18–20 mm × 2–2.5 mm, obliquely erect, spreading or incurved. Labellum whitish, 16–19 mm × 6–7 mm when

flattened, pubescent, porrect in the proximal half, recurved in the distal half; lateral lobes 10–12 mm × ca. 2 mm, erect and column-embracing, constricted before the erect narrow-triangular, free portion which is ca. 2.5 mm long; mid-lobe 6–9 mm × 5–6 mm, widest toward the middle then tapered to a short caudiform apex, lateral margins intensely sinuate-cripsed nearly to the apex; callus of 3 dark reddish ridges, straight and parallel on the basal lobe, becoming irregularly sinuate on the mid-lobe, extending as faint lines nearly to the apex. Column 5–6 mm × 2.5–3 mm, porrect from the end of the ovary, anterior surface and margins pubescent; foot 4–4.5 mm × ca. 2 mm, at about 120° to the column, channeled, ventral surface pubescent. Stigma ca. 2 mm × 1.5 mm, deeply sunken. Anther ca. 4 mm × 2 mm, concave, with a short, decurved, scabrid rostrum. Pollinia ca. 1 mm long, clavate, falcate, orange, waxy. Capsule not seen.

Flowering period. December and January.

Distribution and habitat. Restricted to north-eastern Queensland, where mainly occurring on Mt. Finnigan and with a single reported sighting from Mt. Misery (L. Roberts, pers. comm.). The species grows in shady conditions on trees and rocks in rainforest and tall cloud forest above about 700 m altitude.

Affinities. *Dendrobium brevicaudum* is a distinctive species with no obvious links to any other Australian species of section *Rhizobium*. The plants have a pendulous growth habit similar to those of *D. dolichophyllum* D. L. Jones & M. Clements but with shorter leaves, and the stems lack aerial roots. Florally the new species can be immediately recognized by its relatively small, yellow-brown to orange-brown, strongly fragrant flowers, broad sepals with the lateral sepals curved close to the labellum, and the labellum with a very short, caudate apex. It is the only Australian species of this section known to the authors to have short hairs on the labellum, column, and column foot.

Conservation status. *Dendrobium brevicaudum* is relatively restricted in its distribution but is locally common; it is conserved in the Cedar Bay National Park and is not threatened at present.

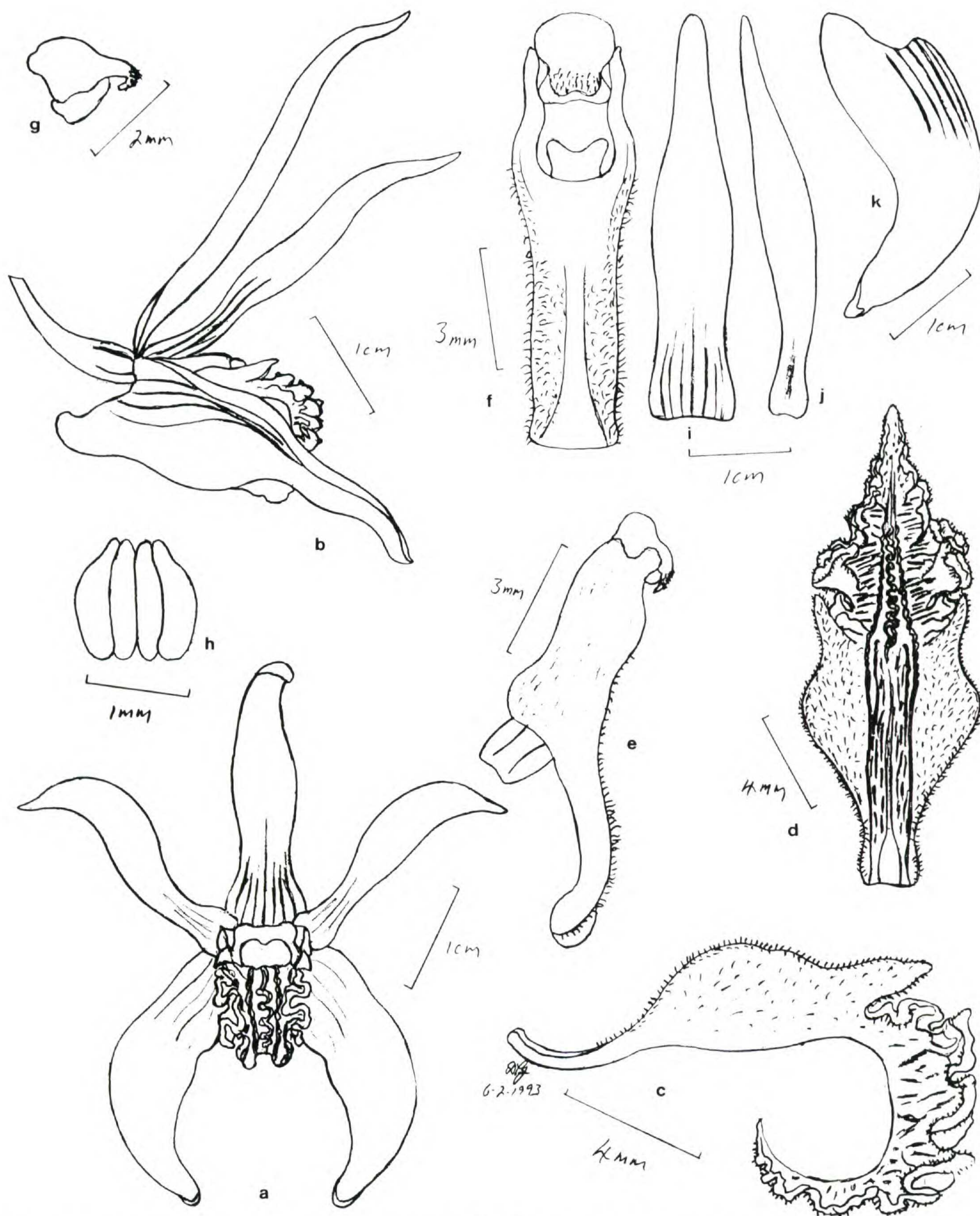


Figure 1. *Dendrobium brevicaudum* D. L. Jones & M. Clements, Mt. Finnigan, L. J. Roberts s.n. —a. Flower from front. —b. Flower from side. —c. Labellum from side. —d. Labellum from above, flattened out. —e. Column from side. —f. Column from front. —g. Anther cap from side. —h. Pollinarium. —i. Dorsal sepal. —j. Petal. —k. Lateral sepal.

Etymology. From the Latin “brevis,” short, and “cauda,” a tail, in reference to the abbreviated labellum apex.

Acknowledgments. We thank Len Lawler and Lewis Roberts for bringing the species to our attention, Corinna Broers for making the type collection,

Alex George for the Latin diagnosis, and Barbara Jones for processing the manuscript.

Literature Cited

Clements, M. A. 1989. Catalogue of Australian Orchidaceae. Austral. Orchid Res. 1: 1–160.